

Att. Rocket No.: A34701 (070050,1728)

#17158  
8/19/03

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Fisher *et al.*  
Serial No. : 09/724,028 Examiner: Tung, Joyce  
Filed : November 28, 2000 Group Art Unit: 1637  
For : METHOD FOR FULL-LENGTH cDNA CLONING USING  
DEGENERATE STEM LOOP ANNEALING PRIMERS

RECEIVED  
AUG 18 2003  
TECH CENTER 1600/2900

August 12, 2003

INFORMATION DISCLOSURE STATEMENT

I hereby certify that this paper is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231

August 12, 2003

Date of Deposit

Lisa B. Kole

Attorney Name

Signature

35,225

PTO Registration No.

August 12, 2003

Date of Signature

08/15/2003 GWORDDF1 00000018 09724028

01 FC:1806

180.00 DP

Assistant Commissioner for Patents  
P.O. Box 1450  
Alexandria VA 22313-1450

Sir:

Pursuant to 37 C.F.R. §§ 1.97 and 1.98, Applicants respectfully request that the publications relating to the above-mentioned application listed herein and on the accompanying PTO Form 1449 be considered by the Examiner and made of record in the U.S. Patent and Trademark Office.

1. Kang DC, LaFrance R, Su ZZ, Fisher PB (1998). Reciprocal subtraction differential RNA display: an efficient and rapid procedure for isolating differentially expressed gene sequences. *Proc Natl Acad Sci USA* 10(23):13788-13793.

2. Hooft van Huijsduijnen R (1998). PCR-assisted cDNA cloning: a guided tour of the minefield. *Biotechniques* 24(3):390-392.
3. Lin JJ, Jiang H, Fisher PB (1998). Melanoma differentiation associated gene-9, mda-9, is a human gamma interferon responsive gene. *Gene* 207(2):105-110.
4. Carninci P, Nishiyama Y, Westover A, Itoh M, Nagaoka S, Sasaki N, Okazaki Y, Muramatsu M, Hayashizaki Y (1998). Thermostabilization and thermoactivation of the thermolabile enzymes by trehalose and its application for the synthesis of full length cDNA. *Proc Natl Acad Sci USA* 95(2):520-524.
5. BALT CapFinder (1996). PCR cDNA Synthesis Kit. *CLONTECHniques* 11(2-4).
6. Carninci P, Kvam C, Kitamura A, Ohsumi T, Okazaki Y, Itoh M, Kamiya M, Shibata K, Sasaki N, Izawa M, Muramatsu M, Hayashizaki Y, Schneider C (1996). High-efficiency full-length cDNA cloning by biotinylated CAP trapper. *Genomics* 37(3):327-336.
7. Chenchik A, Diachenko L, Moqadam F, Tarabykin V, Lukyanov S, Siebert PD (1996). Full-length cDNA cloning and determination of mRNA 5' and 3' ends by amplification of adaptor-ligated cDNA. *Biotechniques* 21(3):526-534.
8. Su ZZ, Lin J, Shen R, Fisher PE, Goldstein NI, Fisher PB (1996). Surface-epitope masking and expression cloning identifies the human prostate carcinoma tumor antigen gene PCTA-1 a member of the galectin gene family. *Proc Natl Acad Sci USA* 93(14):7252-7257.
9. Adams MD, Kerlavage AR, Fleischmann RD, Fuldner RA, Bult CJ, Lee NH, Kirkness EF, Weinstock KG, Gocayne JD, White O, *et al.* (1995). Initial assessment of human gene diversity and expression patterns based upon 83 million nucleotides of cDNA sequence. *Nature* 377(6547 Suppl):3-174.
10. Schaefer BC (1995). Revolutions in rapid amplification of cDNA ends: new strategies for polymerase chain reaction cloning of full-length cDNA ends. *Anal Biochem* 227(2):255-273.
11. Bahring S, Sandig V, Lieber A, Strauss M (1994). Mapping of transcriptional start and capping points by a modified 5' RACE technique. *Biotechniques* 16(5):807-808.

12. Chencik A, Diachenko L, Chang C, Kuchibhatla S (1994). Great lengths cDNA synthesis kit for high yields of full-length cDNA. *CLONTECHniques* 9:9-12.
13. Frohman MA (1994). On beyond classic RACE (rapid amplification of cDNA ends). *PCR Methods Appl.* 4(1):S40-S58.
14. Kato S, Sekine S, Oh SW, Kim NS, Umezawa Y, Abe N, Yokoyama-Kobayashi M, Aoki T (1994). Construction of a human full-length cDNA bank. *Gene* 150(2):243-250.
15. Kellogg DE, Rybalkin I, Chen S, Mukhamedova N, Vlasik T, Siebert PD, Chenchik A (1994). TaqStart Antibody: "hot start" PCR facilitated by a neutralizing monoclonal antibody directed against Taq DNA polymerase. *Biotechniques* 16(6):1134-1137.
16. Maruyama K, Sugano S (1994). Oligo-capping: a simple method to replace the cap structure of eukaryotic mRNAs with oligoribonucleotides. *Gene* 138(1-2):171-174.
17. Frohman MA (1993). Rapid amplification of complementary DNA ends for generation of full-length complementary DNAs: thermal RACE. *Methods Enzymol* 218:340-356.
18. Fromont-Racine M, Bertrand E, Pictet R, Grange T (1993). A highly sensitive method for mapping the 5' termini of mRNAs. *Nucleic Acids Res* 21(7):1683-1684.
19. Hirzmann J, Luo D, Hahnen J, Hobom G (1993). Determination of messenger RNA 5'-ends by reverse transcription of the cap structure. *Nucleic Acids Res* 21(15):3597-3598.
20. Jiang H, Fisher PB (1993). Use of a sensitive and efficient subtraction hybridization protocol for the identification of genes differentially regulated during the induction of differentiation in human melanoma cells. *Molecular Cellular Differentiation* 1:285-299.
21. Liu X, Gorovsky MA (1993). Mapping the 5' and 3' ends of *Tetrahymena thermophila* mRNAs using RNA ligase mediated amplification of cDNA ends (RLM-RACE). *Nucleic Acids Res.* 21(21):4954-4960.
22. Maunders M (1993). DNA and RNA ligases. In: M Burrell (ed.) *Methods of Molecular Biology. Enzymes of Molecular Biology*. Totowa, NJ: Humana Press 16:213-230.
23. Rychlik W (1993). Selection of primers for PCR. In: B White (ed.) *Methods in Molecular Biology*. Totowa, NJ: Humana Press 15:31-40.

24. Troutt AB, McHeyzer-Williams MG, Pulendran B, Nossal GJ (1992). Ligation-anchored PCR: a simple amplification technique with single -sided specificity. *Proc Natl Acad Sci USA* 89(20):9823-9825.
25. Edwards JB, Delort J, Mallet J (1991). Oligodeoxyribonucleotide ligation to single-stranded cDNAs: a new tool for cloning 5' ends of mRNAs and for constructing cDNA libraries by in vitro amplification. *Nucleic Acids Res* 19(19):5227-5232.
26. Duyk GM, Kim SW, Myers RM, Cox DR (1990). Exon trapping: a genetic screen to identify candidate transcribed sequences in cloned mammalian genomic DNA. *Proc Natl Acad Sci USA* 87(22):8995-8999.
27. Frohman M (1990). RACE: Rapid Amplification of cDNA Ends. In: M Innis, D Gelfand, J Sninsky, T White (eds.), *PCR Protocols*. San Diego, CA: Academic Press pp. 28-38.
28. Auch D, Reth M (1990). Exon trap cloning: using PCR to rapidly detect and clone exons from genomic DNA fragments. *Nucleic Acids Res.* 18(22):6743-6744.
29. Loh EY, Elliott JF, Cwirla S, Lanier LL, Davis MM (1989). Polymerase chain reaction with single-sided specificity: analysis of T cell receptor delta chain. *Science* 243(4888):217-220.
30. Frohman MA, Dush MK, Martin Gr (1988). Rapid production of full-length cDNAs from rare transcripts: amplification using a single gene-specific oligonucleotide primer. *Proc. Natl. Acad. Sci. USA* 85(23):8998-9002.
31. D'Alessio JM, Gerard GF (1988). Second-strand cDNA synthesis with E. coli DNA polymerase I and RNase H: the fate of information at the mRNA 5' terminus and the effect of E. coli DNA ligase. *Nucleic Acids Res* 16(5):1999-2014.
32. Kotewicz ML, Sampson CM, D'Alessio JM, Gerard GF (1988). Isolation of cloned Moloney murine leukemia virus reverse transcriptase lacking ribonuclease H activity. *Nucleic Acids Res.* 16(1):265-277.
33. Chomczynski P, Sacchi N (1987). Single-step method of RNA isolation by acid guanidinium thiocyanate-phenol-chloroform extraction. *Anal Biochem* 162(1):156-159.

34. Wathelet M, Moutschen S, Defilippi P, Cravador A, Collet M, Huez G, Content J (1986). Molecular cloning, full-length sequence and preliminary characterization of a 56-kDa protein induced by human interferons. *Eur. J. Biochem* 155(1):11-17.
35. Kornblihtt AR, Umezawa K, Vibe-Pedersen K, Baralle FE (1985). Primary structure of human fibronectin: differential splicing may generate at least 10 polypeptides from a single gene. *EMBO J.* 4(7):1755-1759.

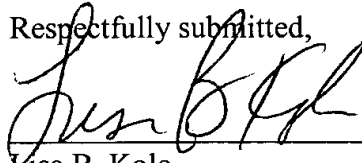
The submission of this Information Disclosure Statement does not represent that a search has been made or that no better art exists and does not constitute an admission that any of the listed documents are material or constitute "prior art." If the Examiner applies any of the documents as prior art against any claim in the application and Applicants determine that the cited documents do not constitute "prior art" under United States law, Applicants reserve the right to present to the Office the relevant facts and law regarding the appropriate status of such documents.

Applicants further reserve the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

Applicants believe that a fee of \$180.00 is due in connection with the filing of this Information Disclosure Statement, and a check in that amount is enclosed. If any additional fee is due or if overpayment has been made, the Commissioner is authorized to charge any fee or to

credit any overpayment associated with this communication to our Deposit Account No. 02-4377. Two copies of this communication are enclosed.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Lisa B. Kole', written over a horizontal line.

Lisa B. Kole

Patent Office Reg. No. 35,225

Attorney for Applicants  
(212) 408-2628

Enclosures